

Facility: PNPS		Date of Exam: TBD																
Tier	Group	RO K/A Category Points											SRO-Only Points					
		K 1	K 2	K 3	K 4	K 5	K 6	A 1	A 2	A 3	A 4	G *	Total	A2		G*	Total	
1. Emergency & Plant Evaluations	1	0	0	0				0	0			0				4	3	7
	2	0	0	0				0	0			0				2	1	3
	Tier Totals	0	0	0				0	0			0				6	4	10
2. Plant Systems	1	0	0	0	0	0	0	0	0	0	0	0			2	3	5	
	2	0	0	0	0	0	0	0	0	0	0	0		0	2	1	3	
	Tier Totals	0	0	0	0	0	0	0	0	0	0	0		4	4	8		
3. Generic Knowledge & Abilities				1		2		3		4				1	2	3	4	7
				0		0		0		0				2	1	2	2	
<p>Note 1. Ensure that at least two topics from every applicable K/A category are sampled within each tier of the RO and SRO-only outlines (i.e., except for one category in Tier 3 of the SRO-only outline, the Tier Totals in each K/A category shall not be less than two).</p> <p>2. The point total for each group and tier in the proposed outline must match that specified in the table. The final point total for each group and tier may deviate by 1 from that specified in the table based on NRC revisions. The final RO exam must total 75 points and the SRO-only exam must total 25 points.</p> <p>3. Systems/evolutions within each group are identified on the associated outline; systems or evolutions that do not apply at the facility should be deleted and justified; operationally important, site-specific systems that are not included on the outline should be added. Refer to section D.1.b of ES-401, for guidance regarding elimination of inappropriate K/A statements.</p> <p>4. Select topics from as many systems and evolutions as possible; sample every system or evolution in the group before selecting a second topic for any system or evolution.</p> <p>5. Absent a plant specific priority, only those KAs having an importance rating (IR) of 2.5 or higher shall be selected. Use the RO and SRO ratings for the RO and SRO-only portions, respectively.</p> <p>6. Select SRO topics for Tiers 1 and 2 from the shaded systems and K/A categories.</p> <p>7.* The generic (G) K/As in Tiers 1 and 2 shall be selected from Section 2 of the K/A Catalog, but the topics must be relevant to the applicable evolution or system. Refer to Section D.1.b of ES-401 for the applicable K/A's</p> <p>8. On the following pages, enter the K/A numbers, a brief description of each topic, the topics' importance ratings (IR) for the applicable license level, and the point totals (#) for each system and category. Enter the group and tier totals for each category in the table above. If fuel handling equipment is sampled in other than Category A2 or G* on the SRO-only exam, enter it on the left side of Column A2 for Tier 2, Group 2 (Note #1 does not apply). Use duplicate pages for RO and SRO-only exams.</p> <p>9. For Tier 3, select topics from Section 2 of the K/A Catalog, and enter the K/A numbers, descriptions, IRs, and point totals (#) on Form ES-401-3. Limit SRO selections to K/As that are linked to 10CFR55.43</p>																		

## Emergency and Abnormal Plant Evolutions - Tier 1 Group 1

EAPE#/Name Safety Function	K1	K2	K3	A1	A2	G	K/A Topic(s)	Imp.	Q#
295016 Control Room Abandonment / 7					X		AA2.02 - Ability to determine and/or interpret the following as they apply to CONTROL ROOM ABANDONMENT: Reactor water level	4.3	1
295005 Main Turbine Generator Trip / 3					X		AA2.08 - Ability to determine and/or interpret the following as they apply to MAIN TURBINE GENERATOR TRIP: Electrical distribution status	3.3	2
295038 High Off-site Release Rate / 9					X		EA2.03 - Ability to determine and/or interpret the following as they apply to HIGH OFF-SITE RELEASE RATE: Radiation levels.	4.3	3
295018 Partial or Total Loss of CCW / 8						X	2.4.4 - Emergency Procedures / Plan: Ability to recognize abnormal indications for system operating parameters which are entry-level conditions for emergency and abnormal operating procedures.	4.7	4
295031 Reactor Low Water Level / 2						X	2.4.2 - Emergency Procedures / Plan: Knowledge of system set points, interlocks and automatic actions associated with EOP entry conditions.	4.6	5
295006 SCRAM / 1						X	2.4.20 - Emergency Procedures / Plan: Knowledge of operational implications of EOP warnings, cautions, and notes.	4.3	6
295030 Low Suppression Pool Water Level / 5					X		EA2.04 - Ability to determine and/or interpret the following as they apply to LOW SUPPRESSION POOL WATER LEVEL: Drywell/ suppression chamber differential pressure: Mark-I&II	3.7	7
K/A Category Totals	0	0	0	0	0/4	0/3	Group Point Total:	7	

EAPE#/Name Safety Function	K1	K2	K3	A1	A2	G	K/A Topic(s)	Imp.	Q#
295008 High Reactor Water Level / 2					X		AA2.02 - Ability to determine and/or interpret the following as they apply to HIGH REACTOR WATER LEVEL: Steam flow/feedflow mismatch	3.4	8
295010 High Drywell Pressure / 5						X	2.2.12 - Equipment Control: Knowledge of surveillance procedures.	4.1	9
295032 High Secondary Containment Area Temperature / 5					X		EA2.02 - Ability to determine and/or interpret the following as they apply to HIGH SECONDARY CONTAINMENT AREA TEMPERATURE: Equipment operability	3.5	10
K/A Category Totals	0	0	0	0	0/2	0/1	Group Point Total:	3	

System #/Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	K/A Topic(s)	Imp.	Q#
217000 RCIC								X				A2.19 - Ability to (a) predict the impacts of the following on the REACTOR CORE ISOLATION COOLING SYSTEM (RCIC) ; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: High suppression pool temperature	3.6	11
218000 ADS								X				A2.02 - Ability to (a) predict the impacts of the following on the AUTOMATIC DEPRESSURIZATION SYSTEM; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: Large break LOCA	3.6	12
300000 Instrument Air											X	2.1.20 - Conduct of Operations: Ability to interpret and execute procedure steps.	4.6	13
215005 APRMs											X	2.2.25, APRMs, Knowledge of the bases in Technical Specifications for limiting conditions for operations and safety limits.	4.2	14
239002 SRVs											X	2.1.23 - Conduct of Operations: Ability to perform specific system and integrated plant procedures during all modes of plant operation.	4.4	15
K/A Category Totals	0	0	0	0	0	0	0	0/2	0	0	0/3	Group Point Total:	5	

System #/Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	K/A Topic(s)	Imp.	Q#
215001 Traversing In-core Probe								X				A2.08 - Ability to (a) predict the impacts of the following on the TRAVERSING IN-CORE PROBE; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: Failure to retract to shield: (Not-BWR1)	2.9	16
214000 RPIS											X	2.1.7 - Conduct of Operations: Ability to evaluate plant performance and make operational judgments based on operating characteristics, reactor behavior, and instrument interpretation.	4.7	17
201003 Control Rod and Drive Mechanism								X				A2.09 - Ability to predict and/or monitor changes in parameters associated with operating the CONTROL ROD AND DRIVE MECHANISM controls including: Low reactor pressure	3.4	18
K/A Category Totals	0	0	0	0	0	0	0	0/2	0	0	0/1	Group Point Total:	3	

Facility:		Date:				
Category	KA #	Topic	RO		SRO-Only	
			IR	Q#	IR	Q#
1. Conduct of Operations						
	2.1.5	Ability to use procedures related to shift staffing, such as minimum crew complement, overtime limitations, etc.			3.9	19
	2.1.32	Ability to explain and apply all system limits and precautions.			4.0	25
Subtotal					2	
2. Equipment Control						
	2.2.40	Ability to apply technical specifications for a system.			4.7	20
Subtotal					1	
3. Radiation Control						
	2.3.11	Ability to control radiation releases.			4.3	21
	2.3.14	Knowledge of radiation or contamination hazards that may arise during normal, abnormal, or emergency conditions or activities.			3.8	24
Subtotal					2	

4. Emergency Procedures / Plan						
	2.4.50	Ability to verify system alarm setpoints and operate controls identified in the alarm response manual.			4.0	22
	2.4.27	Knowledge of "fire in the plant" procedures.			3.9	23
	Subtotal					2
Tier 3 Point Total:						7

[illegible]